

IN THE CLAIMS:

Please amend claims 1-3, 5-8, 22-24 and 26, cancel claims 4, 11-21, 25, 30 and 31, and add new claims 32-49.

1. (Currently amended) An isolated nucleic acid molecule that encodes protein comprising at least one epitope of membrane IgE and at least one nonIgE helper T cell epitope, and being free of epitopes of serum IgE.
2. (Currently amended) The nucleic acid molecule of claim 1 wherein said protein is comprises membrane IgE or fragment thereof.
3. (Currently amended) The nucleic acid molecule of claim 2 wherein said protein is comprises membrane IgE.
4. (Canceled)
5. (Currently amended) The nucleic acid molecule of claim 4 1 wherein the coding sequence encoding ~~of the~~ at least one non-IgE. helper T cell epitope encodes tetanus toxoid Th epitope.
6. (Currently amended) The nucleic acid molecule of claim ~~2~~ 1 wherein said nucleic acid molecule is a plasmid.
7. (Currently amended) The nucleic acid molecule of claim ~~2~~ 1 wherein said nucleic acid molecule is incorporated in a viral vector or a bacterial cell.

8. (Currently amended) A vaccine composition comprising a nucleic acid molecule ~~of claim 1~~ that encodes protein comprising at least one epitope of membrane IgE and being free of epitopes of serum IgE, and a pharmaceutically acceptable carrier or diluent.

9. (Currently amended) A method of treating an individual who has been identified as being susceptible to an IgE mediated allergic disease or condition comprising the step of administering to such an individual a prophylactically effective amount of a vaccine of claim 8.

10. (Currently amended) A method of treating an individual who has been identified as having an IgE mediated allergic disease or condition comprising the step of administering to such an individual a prophylactically effective amount of a vaccine of claim 8.

11-21 (Canceled)

22. (Currently amended) A host cell comprising an isolated nucleic acid molecule that encodes proteins comprising at least one epitope of membrane IgE and at least one nonIgE helper T cell epitope, and being free of epitopes of serum IgE.

23 (Currently amended) The host cell of claim 22 wherein said protein is comprises membrane IgE or fragment thereof.

24(Currently amended) The host cell of claim 22 wherein said protein ~~is~~ comprises membrane IgE.

25. (Canceled)

26. (Currently amended) The host cell of claim ~~25~~ 22 wherein the coding sequence encoding of ~~the~~ at least one non-IgE. helper T cell epitope encodes tetanus toxoid Th epitope.

27. (Previously presented) The host cell of claim 22 wherein said nucleic acid molecule is a plasmid.

28 (Previously presented) A method of producing a protein comprising at least one membrane IgE and at least one non-IGE helper T cell epitope and being free of epitopes of serum IgE comprising culturing a host cell of claim 22 and isolating said protein expressed thereby.

29. (Original) The method of claim 28, wherein the proteins isolated using antibodies that specifically bind to said protein.

30-31. (Canceled)

32. (New) The vaccine of claim 8 wherein said protein comprises membrane IgE or fragment thereof.

33. (New) The vaccine of claim 8 wherein said protein comprises membrane IgE.

34. (New) The vaccine of claim 8 further comprising coding sequence encoding at least one non-IgE helper T cell epitope.

35. (New) The vaccine of claim 34 wherein the coding sequence encoding the at least one non-IgE. helper T cell epitope encodes tetanus toxoid Th epitope.

36. (New) The vaccine of claim 8 wherein said nucleic acid molecule is a plasmid.

37. (New) The vaccine of claim 8 wherein said nucleic acid molecule is incorporated in a viral vector or a bacterial cell.

38. (New) The method of claim 9 wherein said protein comprises membrane IgE or fragment thereof.

39. (New) The method of claim 9 wherein said protein comprises membrane IgE.

40. (New) The method of claim 9 further comprising coding sequence encoding at least one non-IgE helper T cell epitope.

41. (New) The method of claim 40 wherein the coding sequence encoding the at least one non-IgE helper T cell epitope encodes tetanus toxoid Th epitope.

42. (New) The method of claim 9 wherein said nucleic acid molecule is a plasmid.

43. (New) The method of claim 9 wherein said nucleic acid molecule is incorporated in a viral vector or a bacterial cell.

44. (New) The method of claim 10 wherein said protein comprises membrane IgE or fragment thereof.

45. (New) The method of claim 10 wherein said protein comprises membrane IgE.

46. (New) The method of claim 10 further comprising coding sequence encoding at least one non-IgE helper T cell epitope.

47. (New) The method of claim 46 wherein the coding sequence encoding the at least one non-IgE. helper T cell epitope encodes tetanus toxoid Th epitope.

48. (New) The method of claim 10 wherein said nucleic acid molecule is a plasmid.

49. (New) The method of claim 10 wherein said nucleic acid molecule is incorporated in a viral vector or a bacterial cell.